

# UNDERSTANDING AND TREATING PERIODONTAL DISEASE



Restoring the Health of Your Teeth and Gums

# What Is Periodontal Disease?

Periodontal disease affects the structures that support the teeth. It's sometimes called "gum disease," but it involves bone and other tissues, too. This disease is usually **chronic** (persists over time). The good news is that treatment can limit damage and help keep your mouth healthier.



►► Some people notice tender or bleeding gums, but periodontal disease often causes no symptoms.

## A Silent Disease

Periodontal disease often causes no symptoms, especially in its early stages. But don't be fooled. This "silent" disease can still damage the gums, bone, and other tissues that surround the teeth. Unless it's treated, this damage will worsen. Eventually, this can lead to tooth loss. The bacteria that cause periodontal disease may be linked to more general health problems. These include heart disease, pregnancy complications, and other serious conditions.

## What Puts You At Risk

Some of the factors that put you at risk can be controlled, but others can't. Though age is not a risk factor, older people often have more severe disease because there has been more time for damage to occur. Risk factors include:

- Smoking
- Poor brushing and flossing (oral hygiene)
- Having diabetes, especially if it's poorly managed
- Taking certain medications
- Teeth-grinding or bite problems
- Hormone changes, such as those during pregnancy
- Having a weakened immune system
- Having a close family member with periodontal disease

## Treatment for Periodontal Disease

The sooner you're treated, the better the outcome. If periodontal disease is caught early, your dental professional may be able to reverse some or all of the damage with nonsurgical treatments. If it is more advanced, surgery may stop further damage. In many cases, treatment can help prevent tooth loss. Much of the outcome, though, is up to you. You'll need to commit to taking better care of your teeth at home. You'll also need ongoing dental care after treatment. Talk to your dental team about your treatment options. Make sure you understand what your treatment will involve. Learn how to prepare for treatment and take care of yourself afterward.

## Your Dental Team

These dental professionals may be involved in your care:

- A **dental hygienist** performs routine cleanings and in some cases certain nonsurgical treatments. Your hygienist can be a key ally.
- A **general dentist** treats a wide range of dental problems. This may include diagnosing and treating your periodontal disease. You also may be referred to a periodontist for evaluation and treatment.
- A **periodontist** is a dentist who specializes in evaluating and treating periodontal disease. This provider performs both surgical and nonsurgical treatments.

In this booklet, "dentist" may refer to both periodontists and general dentists.



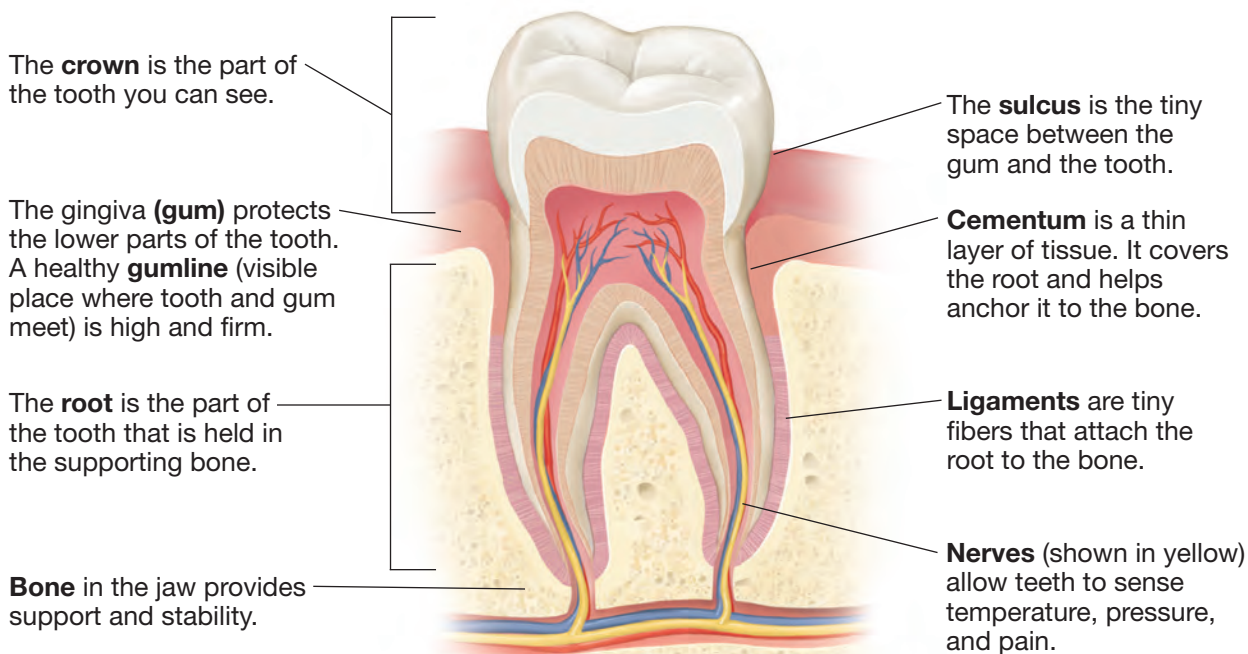


# Understanding Your Teeth and Gums

**Teeth are held in place by the bone, gums, and other tissues around them. Dental plaque is the main threat to teeth and their supporting tissues. Plaque is a sticky coating of bacteria that forms on teeth and at the gumline. If this plaque isn't removed daily, it can build up. This results in periodontal disease.**

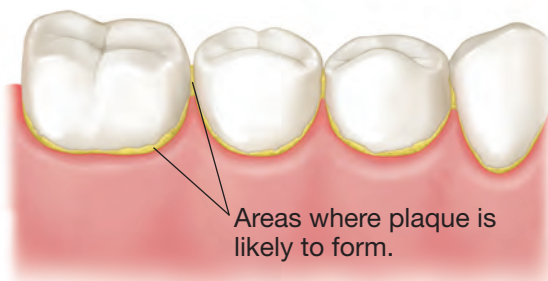
## Healthy Gums and Teeth

Teeth are supported by the jawbone. Soft tissues (gums) cover the bone and part of each tooth and fill spaces between teeth. Ligaments (connective fibers) attach teeth to bone. All of these tissues keep teeth in place to do their job—letting you chew and speak.



## Plaque and Tartar

Dental plaque forms constantly, collecting in the grooves of the teeth, between teeth, at the gumline, and below it. If not removed by brushing and flossing, plaque hardens into **tartar** (also called calculus). Tartar can be removed only with a professional cleaning.

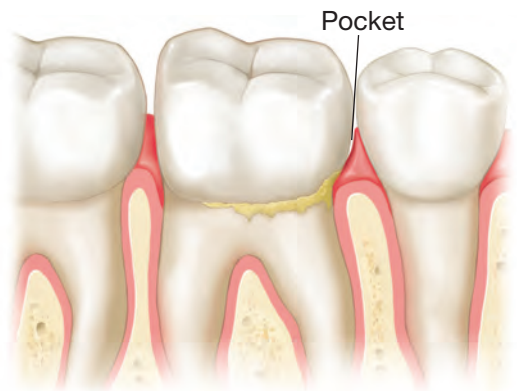


## How Periodontal Disease Develops

The disease starts when tartar and bacteria under the gumline lead to **infection** (overgrowth of bacteria). As the body fights the infection, the gums become **inflamed** (irritated and swollen). **Pockets** (spaces) form between tooth and gum, making plaque harder to remove. As the disease advances, bone damage occurs. This can lead to tooth loss.

### Gingivitis

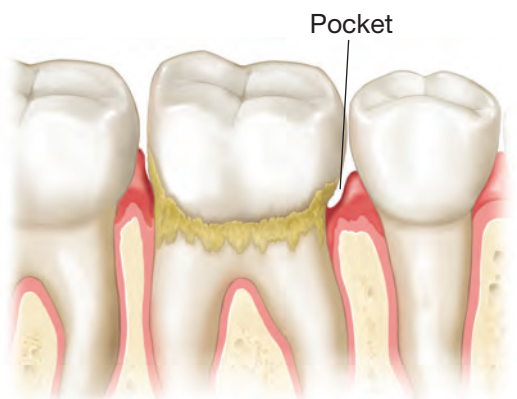
This is the mildest form of periodontal disease. The gum becomes inflamed. The space between the gum and tooth deepens, forming a pocket. Gums may become red and swollen. They may bleed when brushing and flossing. Or, there may be no symptoms. Gingivitis can often be reversed with dental cleanings and regular brushing and flossing. Left untreated, it can progress to periodontitis.



**Gingivitis: Plaque and tartar inflame the gum, and pockets form.**

### Periodontitis

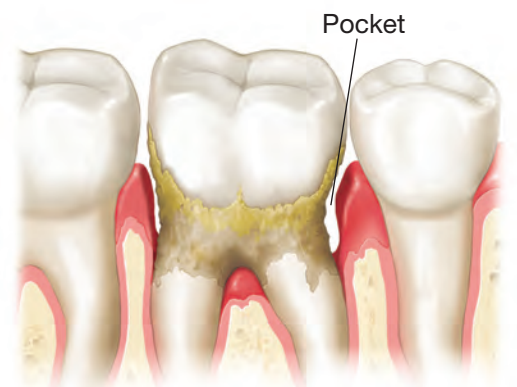
With periodontitis, infection and inflammation spread. Ligaments break down and the gums may recede (shrink back). Pockets deepen and can be difficult to keep clean. Redness, swelling, and bleeding may develop or worsen. Bacteria multiply, and infection begins to destroy the bone. As bone is destroyed, teeth may start to feel loose.



**Periodontitis: Pockets deepen. Disease starts to destroy tissues.**

### Advanced Periodontitis

As periodontitis advances, pockets deepen even more and can fill with pus. Around the roots of the teeth, the gums may start to swell. Bone loss continues. The teeth may feel sensitive to heat or cold. They may hurt when brushed. Teeth may loosen or shift due to loss of bone and ligament. In some cases, teeth may need to be removed to keep periodontal disease from spreading.



**Advanced periodontitis: As more bone is lost, the tooth is in danger of falling out.**

# Your Evaluation

**Before treatment begins, your oral health will be evaluated. The evaluation includes questions about your medical and dental history, a dental exam, and x-rays. The information gathered helps your dental team form and recommend a treatment plan.**

## Medical History

You'll be asked about factors that could affect the disease or treatment, such as:

- **Heart disease.** If you have some heart conditions or have a heart valve replacement, you may need to take antibiotics before some or all dental treatments.
- **Smoking.** Continuing to smoke could make your treatment less successful.
- **Diabetes.** If you have diabetes, managing it is an important part of treating periodontal disease.
- **Pregnancy.** You may need more frequent cleanings during pregnancy.
- **Medications.** Certain medications can affect periodontal disease. These include birth control pills and treatments for epilepsy, high blood pressure, and other conditions.



## Dental History

Your dental professional will ask if you have a history of periodontal disease. You'll be asked about dental work, such as bridges or crowns. Mention any dental work you've had or plan to have done. Also, discuss how you've been taking care of your teeth, and ways to improve home care.

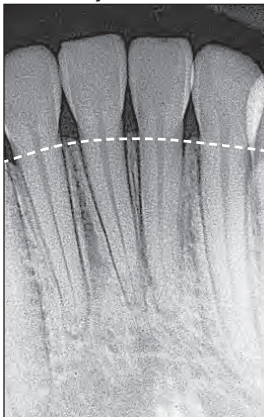
## The Periodontal Exam

During your exam, your dental professional will check your gums for problems. They will also check for signs of tooth movement or bite problems. If a medical problem such as diabetes might be a factor, you'll be referred to a medical provider.

### X-Rays

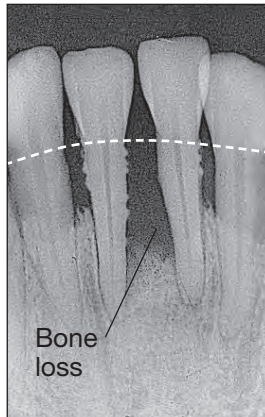
Full-mouth x-rays show each tooth, including its roots. X-rays also show the bone surrounding teeth. This helps detect bone loss.

#### Healthy Bone



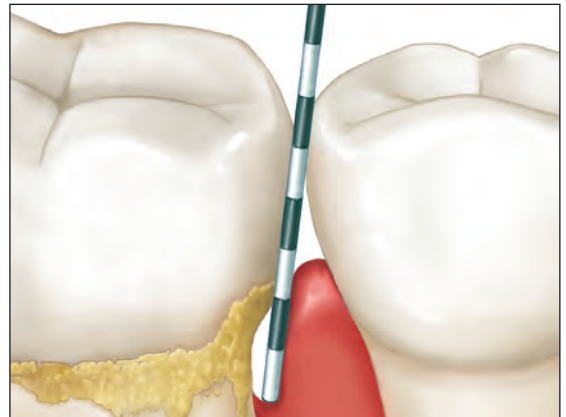
The white line marks a healthy height for bone between teeth.

#### Bone Loss



### Periodontal Probing

Gum damage and bone loss is gauged by measuring the gap between teeth and gums. An instrument like a tiny ruler is gently inserted between the tooth and gum. Deeper pockets indicate more severe disease.



Some space between the tooth and gum is normal. A deeper gap signals gum disease.

## Your Treatment Plan

After your evaluation, you'll discuss treatment options with your dental professional. In many cases, nonsurgical treatments are tried first. This may be the only treatment needed. Or it may be a first step in preparing for surgery. In some cases, surgery is planned from the outset. After any kind of treatment, ongoing maintenance is needed.



# Nonsurgical Treatments

These treatments help reduce plaque, infection, and other causes of periodontal disease. Along with home care, they may be enough to encourage the tissues in your mouth to heal. See pages 14 and 15 to learn about home care. After treatment, you are likely to have another evaluation. This will help show how healing is progressing. If needed, surgery may be the next step.

## Scaling and Root Planing

This treatment is done by a dental professional. Sometimes an ultrasonic device is used to remove heavy deposits. Then plaque and tartar are removed (**scaling**). The root surfaces are also smoothed (**root planing**). This helps keep the area free of bacteria and may help ligaments to reattach, reducing pocket depth.



Scaling at and just below the gumline reaches tartar that can't be removed in an ordinary dental cleaning.



Root planing smooths rough spots on the roots where bacteria collect.



## Antibiotics

Infection can be treated with antibiotics, which decrease bacteria. Pills may be prescribed. Or the antibiotic may be placed directly into the infected pocket.



## Bite Correction

Problems such as an uneven bite can worsen bone loss. Grinding or clenching the teeth may contribute to the problem. A bite guard or other ways of adjusting the bite can reduce pressure and help control the damage.



# If You Need Surgery

**Surgery may be needed for severe periodontal disease. Surgery may be done to reduce pocket depth, help regenerate bone and other tissue, or adjust the gumline. It may also be done to reach tartar that can't be removed with scaling and root planing alone.**

## Your Surgical Experience

Periodontal surgery usually takes place in the dental professional's office. You go home soon after it is completed. It is most often done using local anesthesia. This means you are awake, but pain free. If needed, you may also be given medication to help you relax. Have an adult family member or friend prepared to drive you home.

## Recovering at Home

Your dental professional will tell you what to expect after the procedure. They may instruct you to:

- Rest for a day or two.
- Take medication to control pain or infection.
- Use cold or medication to control swelling.
- Avoid smoking.
- Clean your teeth gently using the method your dental professional directs.
- Care for the surgical area as your dental professional directs.

## Returning for Follow-Up

You'll have a follow-up visit to check your healing. At this time, stitches and any dressing (protective covering) are removed.

## Risks and Complications



*Any surgery has risks. In general, the risks and complications of periodontal surgery may include:*

- Pain or discomfort
- Increased tooth mobility or sensitivity (often temporary)
- Swelling and bruising of the cheek
- Numbness or tingling, due to temporary or permanent damage to nearby nerves
- Exposure of more crown or root

## When to Call Your Dental Professional



*After periodontal surgery, call if:*

- You have excessive bleeding or swelling
- The stitches come undone earlier than you have been told to expect
- Part or all of the dressing (if used) comes off or is uncomfortable
- You have persistent pain
- You have a fever of 100.4°F (38°C) or higher, or as directed by your dental professional

# Pocket Reduction Surgery

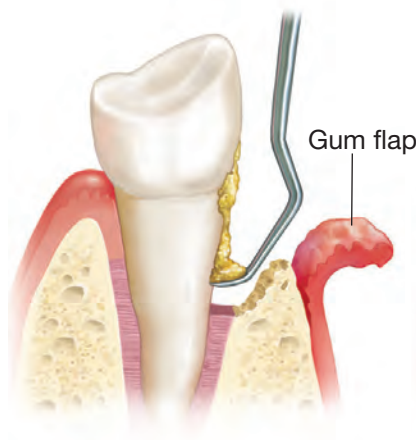
If deep pockets and bleeding persist after nonsurgical treatments, surgery on the gum and bone may be needed. This type of surgery can reduce pocket depth and save teeth. It also allows the dental professional to remove tartar deep below the gumline. In some cases, pocket reduction surgery is combined with **regenerative procedures** (see page 12).

## Reshaping Gum and Bone

Pocket reduction begins with **flap surgery**. The gum is gently separated from the tooth and placed in a new position. In most cases, **osseous surgery** is also performed. This involves reshaping and smoothing the bone. After treatment is complete, the gumline will most likely be lower. This leaves more of the tooth exposed. If the root is exposed, ongoing treatment with fluoride or another material may be needed to reduce sensitivity and prevent decay.



**Before surgery:** A deep pocket allows plaque and tartar to collect far below the gumline. Inflammation and infection have destroyed some supporting bone.



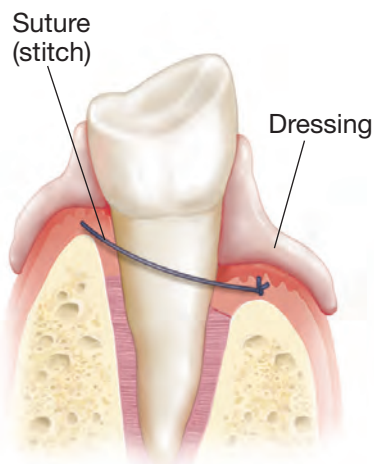
**Opening the gum:** The gum is first lifted and rolled back, creating a "gum flap." Tartar is then removed from the root. Diseased gum tissue may also be removed.



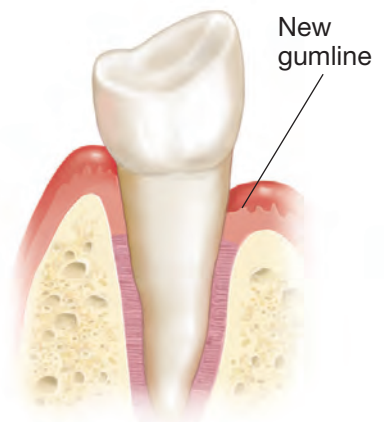
**Shaping the bone:** If needed, the bone is smoothed and reshaped. This reduces pits and rough areas where bacteria grow.



**Helping tissues heal:** A substance may be applied to the root to help the soft tissues and gum reattach. Instruments may be used to cauterize (seal off) the area and reduce bleeding.



**Closing up:** The gum flap is sewn shut in a position that reduces pocket depth. A dressing may be used to protect the area. If used, it stays in place until removed by your dental professional at a follow-up visit.



**After the gum heals:** Once the gum is healed, the stitches dissolve or are removed. Your dental professional also removes any dressing. The pocket is shallower. With a lower gumline, more of the tooth will probably be visible.

# Regenerative Procedures

**Certain procedures can be used to stimulate growth of new bone. This increases the height of the bone around the tooth, giving it more support. Gaining back even half the lost bone height extends the life of the tooth.**

## Bone Replacement Graft

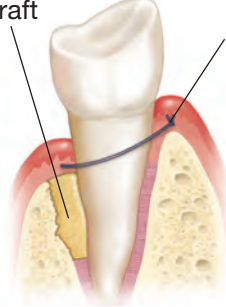
A graft helps your body replace lost bone. The graft may consist of your own bone, synthetic material, or bone from a tissue bank. Growth factors may also be used to stimulate tissues to grow.

Graft material



**Placing the graft:** A gum flap is created. After scaling and planing, growth factors may be used. Graft material is packed into the area where bone was lost.

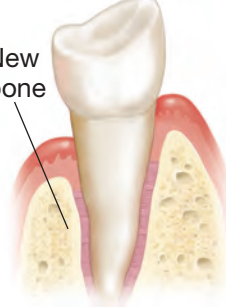
Graft



**Closing up:** The gum is closed and sewn together. The growth factors promote tissue growth. The graft provides a framework on which new bone can grow.

Suture (stitch)

New bone



**After the area heals:** Stitches dissolve or are removed. The gum heals in a few weeks, but it takes a year or more for new bone to fill the space.

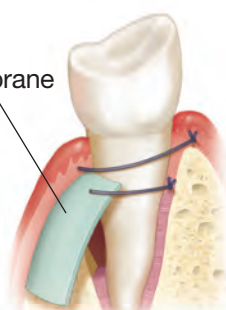
## Guided Tissue Regeneration

A special membrane is placed between gum and bone. This prevents gum tissue, which grows quickly, from filling the space where bone was lost. That way, new bone has time to grow where it's needed.



Gum flap

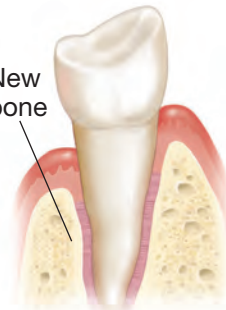
Membrane



**Surgery on gum and bone:** A gum flap is created. A membrane is placed over the damaged bone.

**Separating tissues:** Once in place between bone and gum, the membrane allows space for bone to heal.

New bone



**After healing:** The stitches and membrane dissolve or are removed. In about a year, bone forms to support the tooth.



# Gingival Surgery

A gumline that looks uneven or shows too much tooth is a common effect of periodontal disease. Surgery on the gums can lower or even out the gumline. Surgery can also be done to show more of the tooth.

## Soft Tissue Graft

When the gum isn't supported by bone, the gum can start to pull away. This is known as **recession**. A graft can be used to fill in an area where the gum has receded. The graft tissue may be taken from the roof of the mouth or from a tissue bank.



**Before surgery:** A gumline that has receded can expose the root of a tooth. This can lead to sensitivity and decay at the root. The uneven gumline may be visible when you smile.



**After surgery:** Graft tissue covers part or all of the exposed root. This protects the root and prevents the gum from receding further. It can also improve your appearance.

## Crown Lengthening

Surgery to expose more of the crown includes:

- **Functional lengthening.**

In some cases, an artificial crown is needed. Gum and bone are removed to expose enough tooth to anchor the new crown. This also helps prevent future damage to gum and bone near the restoration.



**Functional crown lengthening:** Gum and bone are removed. The remaining part of the tooth can now support a crown.



**Cosmetic crown lengthening:** Removing gum creates a more attractive smile.

- **Cosmetic lengthening.** This is done to remove an overgrowth of gum tissue that causes a “gummy” smile. It can improve appearance. It may also make teeth easier to keep clean.

# Protecting Your Investment

Plaque is constantly forming in your mouth. It needs to be removed every day. The best way to remove plaque and keep your teeth and gums healthy is to brush and floss daily. Brushing cleans the front, back, and chewing surfaces of teeth. Flossing cleans between teeth and under gums.

## Brushing

Brush your teeth when you wake up and before bed. For better results, brush after each meal as well. Use a fluoride toothpaste and a toothbrush with soft bristles. Replace the brush when the bristles start to fray. Brush for at least 2 minutes, using the method shown below.



**Step 1:** Hold the brush at a 45-degree angle at the gumline. Brush with short, back-and-forth motions. Don't scrub.



**Step 2:** Brush the inner surfaces of the back teeth at the same angle, using the same back-and-forth motion.



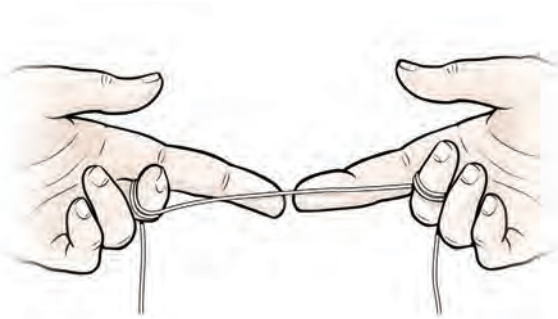
**Step 3:** Turn the brush and use the tip to clean the inner surfaces of the upper and lower front teeth.



**Step 4:** Clean the chewing surfaces using the same motion. Brush your tongue, then rinse well with water.

## Flossing

Floss your teeth daily, using the method shown below. Be sure to also floss the back side of the last tooth on each side. Any kind of dental floss will do the job. So find a type of floss you like to use, and use it!



**Step 1:** Wrap at least 18 inches of floss around your middle fingers. Secure it with your index fingers.



**Step 2:** Ease the floss between your teeth. Wrap it around one side of the tooth, forming a C-shape. Gently work the floss up and down, going below the gumline.



**Step 3:** Move to a clean section of floss and go on to the next tooth.



**Note:** If you have a bridge or wear braces, use a floss threader to get the floss under the bridge or wires.

## Aids You May Use

- A **powered toothbrush** can help you brush effectively. Most powered brushes have a built-in timer to help you make sure to brush for 2 minutes or more.
- A **floss holder** may make flossing easier.
- An **interdental brush** is used to clean large spaces between teeth.
- A **tongue cleaner** is used to scrape bacteria off the tongue.
- A **mouth rinse** may help kill bacteria. It is not a substitute for flossing, though.
- An **end-tuft toothbrush** helps you brush hard-to-reach spots.
- A **rubber tip stimulator** or **interdental stimulator** massages gums.



## Ongoing Care for Your Smile

Unless you take steps to manage it, active periodontal disease is likely to come back. Your dental professional may recommend that you have your teeth cleaned three or more times a year. This can help keep periodontal disease from returning or getting worse and helps prevent tooth loss.

## Controlling Risk Factors

Some risk factors for periodontal disease can be controlled. This helps you reduce your risk of future problems with gum disease:

- **If you smoke**, ask your healthcare provider about ways to quit.
- **If you have diabetes**, work with your healthcare provider to manage it.
- **If you take medications that increase your risk**, ask your healthcare provider about other options.

Also available in Spanish

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